

66. (Amended) The method of Claim 58, wherein said nutritionally essential amino acids are increased to represent 5% of the total amino acid content of the protein.

Sub 618
67. (Amended) The method of Claim 58, wherein said nutritionally essential amino acids are increased to represent 10% of the total amino acid content of the protein.

73. (Amended) The method of Claim 69, wherein said amino acid changes are made to increase levels of nutritionally essential amino acids in the engineered protein.

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74. (Amended) The method of Claim 73, wherein said nutritionally essential amino acid is selected from the group consisting of methionine, tryptophan, lysine, valine, phenylalanine, isoleucine, leucine, threonine and cysteine.

Sub 621
75. (Amended) The method of Claim 74, wherein said nutritionally essential amino acid is methionine.

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81. (Amended) The method of Claim 73, wherein said nutritionally essential amino acids are increased to represent 5% of the total amino acid content of the protein.

Sub 623
82. (Amended) The method of Claim 73, wherein said nutritionally essential amino acids are increased to represent 10% of the total amino acid content of the protein.

Sub 625
98. (Amended) The method of Claim 97, wherein said amino acid changes are made to increase levels of nutritionally essential amino acids in the engineered protein.

99. (Amended) The method of Claim 98, wherein said nutritionally essential amino acids are selected from the group consisting of methionine, tryptophan, lysine, valine,

cn+
C5 phenylalanine, isoleucine, leucine, threonine and cysteine.

C6 106. (Amended) The method of Claim 98, wherein said nutritionally essential amino acids are increased to represent 5% of the total amino acid content of the engineered protein.

107. (Amended) The method of Claim 98, wherein said nutritionally essential amino acids are increased to represent 10% of the total amino acid content of the engineered protein.

C7 115. (Amended) A method for altering amino acid composition of a native protein of interest, said method comprising introducing amino acid changes into said protein to create an engineered protein having increased level of nutritionally essential amino acids, said engineered protein having the conformation of the native protein wherein said conformation of the engineered protein is confirmed by binding said engineered protein with a set of interacting molecules capable of binding with the native protein, and wherein said molecules recognize native conformation.
